

²⁷ 26. (New) In a fibre-reinforced pressure vessel (1, 6) comprising a rigid gas- or fluid-tight body (2, 7, 13, 19) overwound with fibre filaments (3, 10, 11, 18) including a number of windings in a generally polar direction of the rigid body (7), such that when the pressure vessel is under internal pressure, the fibre filaments (3, 10, 11, 18) are strained exactly in their longitudinal direction, the improvement wherein at least a number of the fibre filaments (3, 10, 11, 18) are not incorporated in a matrix so that these fibre filaments can move freely with respect to one another or with respect to the rigid body (7).

²⁸ 27. (New) Fibre-reinforced pressure vessel according to claim ²⁷26, wherein said at least a number of the fibre filaments which are not incorporated in a matrix so that these fibre filaments can move freely with respect to one another or with respect to the rigid body (7) are polar windings (3, 11, 18).

²⁹ 28. (New) Fibre-reinforced pressure vessel according to claim ²⁸27, wherein said at least a number of the polar windings (3, 11, 18) which are not incorporated in a matrix so that these windings can move freely with respect to one another or with respect to the rigid body (7) are in substantially direct contact with the surface of the rigid body (7).

³⁰ 29. (New) Fibre-reinforced pressure vessel according to claim ²⁸27, wherein said at least a number of the polar windings (3, 11, 18) which are not incorporated in a matrix so that these windings can move freely with respect to

one another or with respect to the rigid body (7), overwrap the rigid body over substantially 360 degrees with respect to a rotation-axis or polar axis of the rigid body.

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30. (New) Fibre-reinforced pressure vessel (1, 6) according to claim 26,²⁷

wherein all of the wound fibre filaments (3, 10, 11, 18) are not incorporated in the matrix so that all these fibre filaments can move freely with respect to one another.

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31. (New) Fibre-reinforced pressure vessel (1, 6) according to claim 26,²⁷

wherein the pressure vessel (6) includes a cylindrical shaped portion.

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32. (New) Fibre-reinforced pressure vessel (1, 6) according to claim 26,²⁷

wherein the pressure vessel (1) includes an isotenoid shaped portion.

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33. (New) Fibre-reinforced pressure vessel according to claim 25,

wherein the pressure vessel (1, 6) is provided with a cover (20).

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34. (New) Fibre-reinforced pressure vessel according to claim 33,³⁴

wherein said cover (20) comprises synthetic rubber.

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35. (New) Fibre-reinforced pressure vessel according to claim 25,

wherein the rigid body (2, 7, 13, 19) is made of polyethylene (PE) and the fibre filaments (3, 10, 11, 18) comprise carbon fibres, glass fibres, aramid fibres or a

combination thereof.

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36. (New) Method of manufacturing a fibre-reinforced pressure vessel comprising a rigid gas- or fluid-tight body overwound with fibre filaments, the method comprising the steps of:

- a) providing a rigid gas- or fluid-tight body, fibre filaments and a winding apparatus;
- b) overwinding the rigid body with said fibre filaments including a number of windings in a generally polar direction of the rigid body, such that when the pressure vessel is under internal pressure, the fibre filaments are strained exactly in their longitudinal direction; the improvement wherein: no matrix material is provided so that at least a number of the polar windings are not incorporated in a matrix and these polar windings can move freely with respect to one another or with respect to the rigid body.

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37. (New) Method of manufacturing according to claim 36, wherein no matrix material at all is provided so that all of the overwound fibre filaments are not incorporated in a matrix and all of these windings can move freely with respect to one another or with respect to the rigid body.

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REMARKS

Based on further consideration of the Official Action of March 14, 2002 and the art which has been cited by the Examiner, claims 26-37 have been